

# Career and Technical Education Department

## Business & Technology Courses

<b>Computer Literacy And Applications</b>	<b>Course #:</b> 9130
<b>Semester</b>	<b>Credit:</b> .5 Credit
<b>Pre-requisite:</b> None	
<b>Fee:</b> \$10.00 per semester	

This course is designed to introduce students to computer skills and applications currently used in academic and workplace situations. Students will utilize and apply problem-solving processes. Students will demonstrate advanced proficiency and accuracy in keyboarding using touch typing. They will use these keyboarding skills to develop word processing, database and spreadsheet documents. Students will create multimedia documents. Students will conduct various Internet searches to accomplish specific tasks and assignments. Students will learn various file management skills, website design, ethical and legal issues involved in computer use, and the history and development of computers. Students will explore various career opportunities that are available with computer knowledge and skills.

**STANDARDS:** Nevada Information Literacy Standards; Information Literacy Content Standards for K – 12 grades (Adopted November 1, 2002/October 30, 2003 Edition).

**TECH PREP:** Junior or Senior students completing Computer Literacy and Applications with a "B" or better could receive 3 credits at TMCC (through Tech Prep).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement.

<b>General Business</b>	<b>Course #:</b> 9015, 9016
<b>Full Year (Repeatable for Credit)</b>	<b>Credit:</b> 1 Credit
<b>Pre-requisite:</b> Approval of instructor	
<b>Fee:</b> \$10.00 per semester	

This course is designed to provide students with an overview of the private enterprise system that will help prepare them to make decisions in their roles as consumers, wage earners, and citizens. Students will be provided with a fundamental understanding of record keeping, bank deposits, and inventory procedures. Students will put this knowledge to work by operating the school store for the class project under the supervision of the instructor. All students will be required to work in the school store at lunch and break, whereby they will receive hands-on training in working in groups and maintaining group working relationships. Advanced General Business students have the choice of advanced work in the textbook or they can choose to study Entrepreneurship and learn to build a business from the ground up. ALL students will also participate in the Virtual Business and stock market competitions in the class.

**STANDARDS:** Business Education Standards (Adopted by the State Board of Education/State Board for Occupational Education on December 13, 2003).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement.

**Web Design (Zero Per.)****Course #: 9157, 9158****Full year****Credit: 1 Credit****Pre-requisite:** **Sophomore standing or above and must have successfully completed a basic course on computer literacy or approval of instructor****Fee:** **\$10.00 per semester**

This course prepares individuals to apply HTML, Javascript, graphics applications, and other authoring tools to the design, editing, and publishing of documents, images, graphics, sound, and multimedia products on the World Wide Web. This course includes instruction in Internet theory; web page standards and policies; elements of web page design; user interfaces; special effects; interactive and multimedia components; search engines; navigation; morphing; e-commerce tools; and emerging web technologies. No prior HTML experience is necessary. Students will have the opportunity to create their own appropriate Web sites for school projects and personal use.

**STANDARDS:** Information Technology Skills Standards Grades 9-14 (Adopted April 12, 2003).

**TECH PREP:** Junior or Senior students completing Information Technology & Web Design with a "B" or better could receive 3 credits.

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement.

**Advanced Web Design (Zero Per.)****Course #: 9173, 9174****Full year****Credit: 1 Credit****Pre-requisite:** **Sophomore standing or above and must have successfully completed a basic Web Page course or approval of instructor****Fee:** **\$10.00 per semester**

This course enhances the student's knowledge of Web Page Design by focusing on advanced skills in HTML coding and other scripting options. The course also provides concentrated study in various programs comprising Adobe's Creative Suite, including industry-accepted software such as Photoshop, Dreamweaver, and Flash. These programs allow students to gain experience with various multimedia techniques and applications popular with Internet usage. In addition, students will learn about the educational and skill requirements associated with the variety of Information Technology, Web Design, and Graphics careers available. This class is open to all students, sophomore and above, that have successfully completed the basic Web Page Design course.

**STANDARDS:** Information Technology Skills Standards Grades 9-14 (Adopted April 12, 2003).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement.

**Company G Courses:**

Company "G" is a training program providing quality education in a simulated office environment. Students are employees and the instructor is the CEO. Students report to "work" each class and complete the tasks that they have prioritized. Management concepts are taught and applied as students hold management positions in the Company. Principles of time management, organization, establishing priorities, and goal setting are taught. The following curriculums can be studied: Advanced Computer Applications, Business Communications, Computer Accounting 1-2 and 3-4, Marketing, and Desktop Publishing.

<b>Advanced Computer Applications</b>	<b>Course #: 9145, 9146</b>
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**Full Year** **Credit: 1 Credit**  
**Pre-requisite:** **Computer Applications or keyboarding at 25 wpm w/5 or fewer errors.**  
**Sophomore standing or above**  
**Fee:** **\$10.00**

Become an expert Microsoft Office user. Prepare to take the MOUS (Microsoft Office User Specialist) certification exams. Make your own letterhead, notepads, business cards, mailing labels, and iron-on transfers. Learn to use PowerPoint for class presentations/assignments.

**STANDARDS:** Nevada Information Literacy Standards; Information Literacy Content Standards for K – 12 grades adopted November 1, 2002 (October 30, 2003 Edition).

**TECH PREP:** Junior or Senior students completing Company G - Advanced Computer Applications with a "B" or better could receive 3 credits at TMCC (through Tech Prep).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement.

<b>Computer Accounting 1-2</b>	<b>Course #: 9001, 9002</b>
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**Full Year** **Credit: 1 Credit**  
**Pre-requisite:** **Sophomore standing or above.**  
**Fee:** **\$10.00**

Do you like math? Accountants keep the financial records of businesses. You'll learn how to determine if the business is making a profit or is losing money. If you are thinking about owning your own business someday or majoring in business in college, this class is for you! This course includes instruction in posting transactions to accounts, record-keeping systems, and accounting software operation.

**STANDARDS:** Business Education Standards (Adopted by the State Board of Education/State board for Occupational Education in December 13, 2003.).

**TECH PREP:** Junior or Senior students completing Company G – Computer Accounting 1-2 with a "B" or better could receive 3 credits at TMCC (through Tech Prep).

<b>Desktop Publishing</b>	<b>Course #: 9155, 9156</b>
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**Full Year** **Credit: 1 Credit**  
**Pre-requisite:** **Sophomore standing or above. Completion of a Computer Lit/Apps class or approval of instructor.**  
**Fee:** **\$10.00**

The appearance of documents makes a strong first impression on readers. By studying desktop publishing you will learn how to use with efficiency and good judgment the advanced features of word processing software. You will develop skills including: making design and typography decisions, handling multicolumn documents, inserting and editing graphics, and creating styles and charts. Your finished documents will have a typeset rather than a typed appearance.

**STANDARDS:** Nevada Information Literacy Standards; Information Literacy Content Standards for K – 12 grades adopted November 1, 2002 (October 30, 2003 Edition)

**TECH PREP:** Junior or Senior students completing Company G – Desktop Publishing with a "B" or better could receive 3 credits at TMCC (through Tech Prep).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement.

<b>Marketing</b>	<b>Course #: 9353, 9354</b>
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<b>Full Year</b>		<b>Credit: 1 Credit</b>
<b>Pre-requisite:</b>	<b>Sophomore standing or above</b>	
<b>Fee:</b>	<b>\$10.00</b>	

This class will provide you with an interesting journey through the world of sports and entertainment marketing. Marketing is the creation and maintenance of satisfying exchange relationships. Learn how the seven basic functions of marketing are applied to product creation and distribution, pricing and promotion.

**STANDARDS:** Marketing Education (12/01/2001).

**TECH PREP:** Junior or Senior students completing Company G - Marketing with a "B" or better could receive 3 credits at TMCC (through Tech Prep).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement.

## **Family and Consumer Science Courses**

<b>Child/Human Development 1-2</b>	<b>Course #: 9421, 9422</b>
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<b>Full Year</b>		<b>Credit: 1 Credit</b>
<b>Pre-requisite:</b>	<b>None</b>	
<b>Fee:</b>	<b>\$10.00 per year for project supplies.</b>	

This class is open to all students. The areas of instruction include the study of children; selecting a mate; decisions before parenthood; reproductive systems and conception; environmental influences and heredity; pregnancy and prenatal care; prenatal health hazards; childbirth; and the newborn. The course emphasizes related health issues to each area of instruction. Health topics to be emphasized include body structure and function, physical and emotional development, prevention of substance abuse, disease and disorders, fitness and nutrition, consumer health, safety and emergency care, family and community health, growth and development, influences of the media and environment, and career opportunities. Students will apply decision-making and critical thinking skills to their own lives in order to develop positive life-style habits, be healthier adolescents and adults, and contribute to the overall well being of society. The areas of instruction for Child Development 2 include the newborn; physical, emotional, social and intellectual development of infants and toddlers; health and safety issues; and the special needs child. It also emphasizes the development of parenting skills and application of decision-making and critical thinking skills needed in order to be productive members of society.

**Since this course includes instruction in human sexuality (i.e. human reproduction systems, pre-natal development, and sexually transmitted diseases), all students will be required to have a signed parental permission form as a condition for enrollment; students 18 years or over may sign their own permission form. Successful completion of this course will satisfy the 0.5 credit Health requirement for graduation.**

**STANDARDS:** Family and Consumer Sciences Standards Grades 9-12 (Adopted 12/01/2001).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement.

<b>Child/Human Development 3-4</b>	<b>Course #: 9425, 9426</b>
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<b>Full Year</b>	<b>Credit: 1 Credit</b>
<b>Pre-requisite: Child/Human Development 1-2 with a grade of C or better or Instructor Approval</b>	

This is an advanced level of Child/Human Development class that gives students practical experience in working with young children directly, as well as organizing and supervising pre-school childcare activities.

Emphasis is placed on the four areas of Child Development, including physical, social, emotional and intellectual growth as they relate to the child from ages 3-6 years.

This course is designed to introduce students to the world of working with children. Students will complete a professional portfolio. Careers and job exploration will be incorporated.

**STANDARDS:** Family and Consumer Sciences Standards Grades 9-12 (Adopted 12/01/2001).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement.

<b>Food Preparation 1-2</b>	<b>Course #: 9471, 9472</b>
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<b>Full Year</b>	<b>Credit: 1 Credit</b>
<b>Pre-requisite: None</b>	
<b>Fee: \$25.00 per Semester</b>	

This course is designed to help students understand food preparation skills and appreciate cultural and geographical influences on food patterns and preparation. Students will develop practical skills in efficient food preparation and presentation of a variety of dishes and cuisine, planning health menus, and appreciation for good health foods. Students who successfully complete this class will be prepared to take Culinary Arts.

**STANDARDS:** Family and Consumer Sciences Standards Grades 9-12 (Adopted 12/01/2001).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement. (Note: The terminal course in this sequence must be taken at AACT.)

<b>Introduction to Culinary Arts 1-2</b>	<b>Course #: 9777, 9778</b>
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<b>Full Year</b>	<b>Credit: 1 Credit</b>
<b>Pre-requisite: Food Preparation 1-2 with a grade of a B or better and teacher approval</b>	
<b>Fee: \$30.00 per semester</b>	

This course is designed to help students have a better understanding of advance food preparation and the skills that are needed to work in the food industry. The class will focus on perfecting knife skills, advance cooking techniques, using cooking terms on a regular basis, menu planning and costing out recipes. Sanitation standards for the industry will also be stressed. Students may have the opportunity to do catering and participate in Pro-Start Competitions. The Pro-Start curriculum will be used.

**STANDARDS:** Family and Consumer Sciences Standards Grades 9-12 (Adopted 12/01/2001).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement. (Note: The terminal course in this sequence must be taken at AACT.)

## Trade & Industry Courses

<b>Small Engine Repair</b>	<b>Course #:</b> 9510
<b>Semester (Not repeatable for credit)</b>	<b>Credit:</b> 0.50 credit
<b>Pre-requisite:</b> None	
<b>Fee:</b> \$20.00	

This class is open to all freshman, sophomore, junior and senior students. This is a basic course covering safety, operation, and general repair of small engines. The student may wish to advance to the automotive courses after completing this course, this course **is** a prerequisite for Auto I.

<b>Auto I</b>	<b>Course #:</b> 9500
<b>Semester (Not repeatable for credit)</b>	<b>Credit:</b> 0.50 credit
<b>Pre-requisite:</b> Small Engine Repair or Teacher Permission	
<b>Fee:</b> \$20.00 per Semester	

This class is open to freshman, sophomore, junior and senior students, both males and females. The class is designed to introduce students to the fundamentals of automobile technology and provide students with the basic skills needed to service an automobile. The areas of instruction include power system classifications, ignition systems, mechanical principles, fluid dynamics, automobile servicing, and the financial and legal considerations of owning and operating a vehicle. This course will emphasize instruction in physical science, mathematics and measurement which will be used in completing automotive projects and assignments. Accepted employment practices and safety factors are established early and stressed throughout the duration of the course. Automotive and related career information is also provided. All students will be required to keep a notebook.

**STANDARDS:** Automotive Technology (State Board Approved 01/26/02).

<b>Drafting I</b>	<b>Course #:</b> 9520
<b>Semester (Not repeatable for credit)</b>	<b>Credit:</b> 0.50 Credit
<b>Pre-requisite:</b> None	
<b>Fee:</b> \$20.00	

This class is open to freshman, sophomore, junior, and senior students, both male and female. The class is designed to introduce students to the fundamentals of drafting. The areas of instruction include sketching, drafting equipment, lettering, geometric constructions, orthographic projections, dimensioning, introduction to computer aided drafting and design (CADD), sectioning, auxiliary view, and pictorials. This course will emphasize instruction in mathematics and measurement, which will be used in completing drawings and other drafting assignments. Accepted employment practices and safety factors are established early and stressed throughout the duration of the course. Drafting career information is also provided. The area of Computer Aided Drafting will also be addressed and students will have the opportunity to spend time using the computer to produce orthographic drawing. All students will be required to keep a notebook. Successful completion of this course is a prerequisite for enrolling in the Drafting II course. Drafting I is required and Drafting II highly recommended for enrolling in the Computer-Assisted Drafting program at RTI.

**STANDARDS:** Computer-Aided Drafting & Design (State Board Approved 04/12/03).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement. (Note: The terminal course in this sequence must be taken at AACT.)

<b>Drafting II</b>	<b>Course #:</b> 9521, 9522
<b>Drafting III</b>	<b>Course #:</b> 9523, 9524
<b>Full Year</b>	<b>Credit:</b> 1 Credit
<b>Pre-requisite:</b>	<b>Drafting I and <u>Instructor Approval.</u></b>
<b>Fee:</b>	<b>\$20.00 per Semester</b>

This class is open to all students, sophomore and above, that have completed Drafting I. The class is designed to expand on the fundamental drafting skills learned in Drafting I by providing students with an opportunity to learn the drafting competencies needed as a prerequisite to advanced drafting courses and a career in drafting. The areas of instruction include a review of basic drafting principles, threads and fasteners, pattern development, cams and gears, working drawings, electrical drafting, and structural/architectural drafting. The area of Computer Aided Drafting will also be addressed and students will have the opportunity to use the computer to produce assigned drawings. This course will emphasize instruction in mathematics and measurement, which will be used in completing drawings and other drafting assignments. Accepted employment practices and safety factors are established early and stressed throughout the duration of the course. Drafting career information is also provided. All students will be required to keep a notebook. It is strongly recommended (but not required) that students complete this course prior to enrollment in the Computer-Assisted Drafting program at the Occupational Center.

**STANDARDS:** Computer-Aided Drafting & Design (State Board Approved 04/12/03).

**TECH PREP:** Students completing a full year of Drafting II with a "B" or better could receive 6 credits at TMCC (through Tech Prep).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement. (Note: The terminal course in this sequence must be taken at AACT.)

<b>Metalworking I</b>	<b>Course #:</b> 9560
<b>Semester (Not repeatable for credit)</b>	<b>Credit:</b> 0.50 Credit
<b>Pre-requisite:</b>	<b>None</b>
<b>Fee:</b>	<b>\$15.00</b>

This class is open to freshman, sophomore, junior, and senior students, both male and female. The class is designed to introduce students to the fundamentals of metalworking. The areas of instruction include fundamentals of sheet and bench metal, fundamentals of oxyacetylene welding and cutting, and fundamentals of arc welding. This course will emphasize precision in measurement, which will be used on a metal lathe project and other assignments. Accepted employment practices and safety factors are established early and stressed throughout the duration of the course. Metalworking career information is also provided. All students will be required to keep a notebook. Successful completion of this course is a prerequisite for enrolling in the Metalworking II course.

**STANDARDS:** Metalworking Standards (Adopted by the State Board of Education/State Board for Occupational Education on March 19, 2005); Welding Skills Standards (03/19/2005).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement.

**Metalworking II****Course #: 9561, 9562****Full Year****Credit:****1 Credit****Pre-requisite: Metalworking I and Instructor Approval****Fee: \$20.00 per Semester and Project/Materials Costs**

This class is open to sophomore, junior, and senior students, both male and female, who have successfully completed the Metalworking I course. The class is designed to expand on the fundamental metalworking skills learned in Metalworking I by providing student with an opportunity to learn the metalworking competencies needed as a prerequisite to advanced metalworking courses and a career in metalworking. The areas of instruction include more in-depth study of oxyacetylene welding and arc welding, as well as study related to gas-metal-arc welding and machine tools. This course will emphasize instruction in mathematics and measurement which will be used in completing metalworking projects and assignments. Accepted employment practices and safety factors are established early and stressed throughout the duration of the course. Metalworking career information is also provided. All students will be required to keep a notebook.

**STANDARDS:** Metalworking Standards (Adopted by the State Board of Education/State Board for Occupational Education on March 19, 2005); Welding Skills Standards (03/19/2005)

**TECH PREP:** Students completing Metalworking II with a "B" or better could receive 3 credits at TMCC (through Tech Prep).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement.

**Metalworking III (Advanced)****Course #: 9563, 9564****Full Year****Credit:****1 Credit****Pre-requisite: Metalworking II and Instructor Approval****Fee: \$20.00 per Semester and Project/Materials Costs**

This class is open to 11<sup>th</sup> and 12<sup>th</sup> grade students, both male and female, who have completed Metalworking I and Metalworking II (with instructor approval). The class is designed to expand on the fundamental metalworking skills learned in Metalworking I and Metalworking II. Students will continue on with fundamentals of machining and welding practices in SMAW, GMAW, Oxy-Acetylene cutting (OAC) and be introduced to GTAW. Students will be required to complete at least one self-designed project.

**STANDARDS:** Metalworking Standards (Adopted by the State Board of Education/State Board for Occupational Education on March 19, 2005); Welding Skills Standards (03/19/2005).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement.

**Metalworking IV (Advanced)****Course #: 9565, 9566****Full Year****Credit: 1 Credit****Pre-requisite: Metalworking III and Instructor Approval****Fee: \$20.00 per Semester and Project/Materials Costs**

This class is open to 11<sup>th</sup> and 12<sup>th</sup> grade students, both male and female, who have completed Metalworking I, II, and III (with instructor approval). The class is designed to enhance basic skills learned in previous classes and teach new one's of GTAW (Gas Tungsten Arc Welding), welding of aluminum and use of digital read-outs on the lathe and milling machine. Students will be required to complete at least one self-designed project.

**STANDARDS:** Metalworking Standards (Adopted by the State Board of Education/State Board for Occupational Education on March 19, 2005); Welding Skills Standards (03/19/2005).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement.

**Introduction to Construction Technology****Course #: 9670****Semester (Not repeatable for credit)****Credit: 0.50 Credit****Pre-requisite: None****Fee: \$20.00**

This one semester ½ credit class is open to all students interested in exploring the wide diversity of careers associated with the construction industry. Many of these careers require a college or technical education. Tool and power tool safety is central to the course objectives. Students will experience current construction industry lectures, interact with industry professionals, complete interactive class exercises, lab projects, and field trips that relate to the following:

1. Surveying and Map Reading
2. Reading Prints and Building Codes
3. Masonry Construction
4. Wood Framing
5. Residential Plumbing
6. Residential Electrical

Upon course completion, students will learn a number of valuable life skills and gain an understanding of the career opportunities that make up today's dynamic construction industry. Basic math language art social skills are practiced throughout the semester. Each semester, students will plan and construct a residential storage shed as a classroom project.

**STANDARDS:** Residential Building Construction (01/31/2004).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement.

**Advanced Construction Technology****Course #: 9677, 9678****Full Year (Not repeatable for credit)****Credit: 1 Credit****Pre-requisite: Introduction to Construction Technology and Instructor Approval****Fee: \$20.00 per Semester and Project/Materials Costs**

This class is open to sophomores, juniors, and seniors, both male and female. The main goal of this class is the continued development of skills and knowledge related to the construction trades. This will include advanced carpentry, advanced masonry, advanced plumbing, advanced electrical wiring, blueprint reading, finish carpentry, and cabinetmaking. With successful completion of this course the student will have gained knowledge and skills needed to attain an entry-level position in the construction field.

**STANDARDS:** Residential Building Construction (01/31/2004).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement.

**Introduction to Engineering Careers (IEC)****Course #: 9750****Semester****Credit: .5 Credit****Pre-requisite:****None****Fee:****\$20.00 per Semester and Project/Materials Costs**

IEC is a class designed to provide students and teachers with a set of objectives for exploring engineering careers. Students will gain knowledge about the diversity of engineering careers and the problem-solving skills needed to pursue engineering professions as future career choices.

The areas of instruction include an exploration of the engineering process to include civil, construction, architectural, mechanical, and electrical engineering. This course emphasizes instruction in problem-solving using mathematic and science skills to complete classroom hands-on projects and other design assignments.

Students will learn about the educational and skill requirements associated with the variety of engineering careers studied. They will be able to explore those engineering careers in preparation for future coursework selections in high school and college. Invited engineering professionals will meet with students to discuss educational requirements, job responsibilities, and skills needed, and field trips maybe scheduled to visit local engineer offices and/or jobsites.

**STANDARDS:** Residential Building Construction (01/31/2004).

**ENDORSEMENT:** This course is included in a program of study that leads to a Career & Technical Education diploma endorsement.